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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/712,042

11/14/2000

Lixiao Wang

S63.2-9213

9167

490

7590

06/27/2006

VIDAS, ARRETT & STEINKRAUS, P.A.

6109 BLUE CIRCLE DRIVE

SUITE 2000

MINNETONKA, MN 55343-9185

EXAMINER

MCCORKLE, MELISSA A

ART UNIT

PAPER NUMBER

3763

DATE MAILED: 06/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/712,042	<b>Applicant(s)</b> WANG ET AL.	
	<b>Examiner</b> Melissa A. McCorkle	<b>Art Unit</b> 3763	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 April 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 19-45 is/are pending in the application.
- 4a) Of the above claim(s) 21-29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 19, 20 and 30-45 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 19, 20, 33, 34, 35, 36, 37, 41, and 45 are rejected under 35 U.S.C. 102(e) as being anticipated by Hamlin (5,270,086).

Regarding claims 19, 34, 35, 36, 37, and 45, Hamlin discloses a balloon for a medical device (fig 4) formed from a length of tubing by radial expansion of the tubing under pressure, the polymer material comprising a melt blend product [col 2 lines 4-11] of at least two thermoplastic polymers [col 1 line 65 – col 2 line 11], a first of said polymers being an engineering resin [col 2 lines 30-68] having a flexural modulus of 240,000 psi [it is inherent that an engineering resin, such as ABS polymers, is capable of having a flexural modulus of 240,000 psi or greater or about 300,000 psi] and a second of said polymers being a block copolymer elastomer [col 2 lines 30-68] having a flexural modulus of about 150,000 psi or less [it is inherent that a block copolymer elastomer is capable of having a flexural modulus of 150,000 psi or less and is well within the skill of the ordinary artisan], the block copolymer including at least one block which is

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structurally similar to the engineering resin, wherein the first and second polymers are a pair selected from the group consisting of engineering polyurethane resins and polyurethane elastomers; aromatic polyesters or copolyesters and aromatic polyester-polyether block copolymers; aromatic polyesters and polyurethane-polyester block copolymers; and polycarbonates and polycarbonate urethane elastomers [col 2 line 31 – col 3 line 8; Hamlin discloses that many combinations from the materials disclosed can be made depending on the desired characteristics such as strength, expansion pressure, etc, as well as distinctly discloses the several of the combinations above].

1. Regarding claim 20, Hamlin discloses the balloon as stated above, wherein the first and second polymers are engineering polyurethane resins and polyurethane elastomers, respectively [col 2 line 31 – col 3 line 8; Hamlin discloses that many combinations from the materials disclosed can be made depending on the desired characteristics such as strength, expansion pressure, etc, as well as distinctly discloses the several of the combinations above].

2. Regarding claims 33 and 41, Hamlin discloses a dilation catheter [fig 5] having an elongated tubular body, a balloon mounted on a distal end thereof and means for inflating the balloon, wherein the balloon is as stated above.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 30, 31, 32, 38, 39, and 40, 42, 43, 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamlin (5,270,086). Hamlin discloses all of the invention as stated above, however Hamlin does not expressly state that a wall strength greater than 20,000 psi or the nominal diameter of a balloon being between 1.5 mm and 4.4 mm. However, in Applicant's specification he states that "Tensile wall strengths are commonly 20,000-50,000 psi" [page 2] and that commercially available balloons have nominal diameters in the range of 1.5-4.5mm [page 2]. Therefore, at the time the invention was made, it would have been obvious to make the catheter of Hamlin to the specifications since these specifications are generally used when making a catheter. Furthermore, one of ordinary skill in the art would expect Hamlin's catheter balloon to perform equally well with a catheter of these dimensions because they perform the same function. This is considered a mere design consideration which fails to patentably distinguish over Hamlin. Hamlin's catheter balloon is capable of having a burst pressure of at least 12 atm or about 16 atm (well over 7 atm [col 5 line 28]) when the materials are combined as above.

#### ***Response to Arguments***

5. Applicant's arguments filed 4/6/06 have been fully considered but they are not persuasive. The claim objections have been withdrawn. In response to the arguments, Hamlin clearly discloses a melt blend product. Hamlin states in the composite structure there is a tensile layer is combined by melt bonding with an inner bonding layer. Furthermore, different composition combinations can be used when applicable to

different situations. Therefore the reference, as stated above, anticipates the applicant's claims.

***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melissa A. McCorkle whose telephone number is (571) 272-2773. The examiner can normally be reached on Monday - Friday, 8:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nick Lucchesi can be reached on (571) 272-4977. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Melissa A McCorkle  
Examiner  
Art Unit 3763



Primary Patent Ex.,  
Art 3763